

SPECIFICATION FOR
CONSTRUCTION OF PREFABRICATED
TOILET/SHOWER
QUARRY RIVER PARK
NORFORK LAKE

1. GENERAL: Furnish all labor, tools, equipment to erect government furnished prefabricated Rom-Tec Sierra 4 six-pac toilet/shower project number 9900195 at Quarry River Park. The structure shall be erected in accordance with attached drawings and specifications, in Baxter County, Arkansas.

2. POINT OF CONTACT: All bidders are encouraged to visit the work site before submitting a bid. All site visits shall be coordinated with Mr. Ben Haney, Supervisory Civil Engineering Technician, Mountain Home Project Office, Mountain Home, AR. 72654, Telephone: 870-425-2700 Extension 142, between 7:30 am and 4:00 pm. Monday thru Friday.

2.1. PRE-WORK CONFERENCE: Upon receipt of the purchase order, the successful bidder shall, within 5 working days, make arrangements for a pre-work conference. This conference is for the Operations Manager and the Contractor to discuss any particular contract requirement, provide any documents required, work plan, safety plan and have a mutual understanding of the work to be performed.

3. DEMOLITION: None.

3.1 GOVERNMENT FURNISHED EQUIPMENT AND MATERIAL: All material and supplies to construct Rom-Tec Sierra 4 six-pac toilet shower project number 9900195. In addition to the structure the government shall furnish materials, supplies, reinforcement bars, nails, masonry sand, mortar, grout and grout pump, concrete, concrete forms and related bracing material and all other incidental materials to complete the work as specified.

3.2 CONTRACTOR FURNISHED MATERIAL: The contractor shall furnish all tools, vehicles for transportation to complete the work as specified.

4. TRANSPORTATION: Contractor shall sign SWD FORM 663-R (GOVERNMENT PROPERTY FURNISHED) and safeguard all government furnished equipment. All unused government equipment and material shall be returned in good condition at the completion of the contract. Contractor shall be responsible for picking up and transporting all government furnished property to and from Norfork Dam compound 1487 Highway 177 South, Salesville, AR 72653 to the work site at Quarry River Park. The contractor shall arrange for pickup and return of government furnished material and equipment 24 hours in advance. During construction and before leaving the work site each day, contractor shall provide and use barricades, signs, or whatever means is necessary, to assure that the construction site is inaccessible to the public and materials

are secured. Upon completion of work at the construction site, contractor shall thoroughly clean up all construction waste, litter, and dispose of in government furnished construction waste dumpster.

5. LOCATION: The toilet/shower is located in a developed area of Quarry River Park (see map). The plan has a typical site elevation. The North elevation shall be constructed in the direction of the parking area. NOTE: Electric power is available at the nearest campsite.

6. MASONRY: The government will furnish split face hollow concrete masonry units conforming to ASTM C 90.

6.1 MORTAR: None.

6.2 GROUT: All concrete blocks and bond beams shall be filled with grout. Grout using low alkali cement shall conform to the requirements of ASTM C 476. Grout shall be laboratory-proportioned for a 2000 psi mix when tested in accordance with paragraph "STRENGTH TESTS OF GROUT." Grout slump shall be between 9 and 11 inches. Except as otherwise specified, fine grout shall be used to fill spaces where the smallest dimension is 2 inches or less. Coarse grout shall be used to fill spaces' where the smallest dimension is greater than 2 inches.

6.3 JOINT REINFORCEMENT: None.

6.4 REINFORCING BARS

Reinforcing bars shall be Grade 40 or 60 steel conforming to ASTM A 615. Size shall be number four as shown on drawing. Centering clips or caging devices shall be formed from not lighter than 9 gauge wire and shall be of a design that will prevent displacement of reinforcing steel during construction. Bending of bars shall be as shown.

7.1 GENERAL REQUIREMENTS

Wall sections, types of construction, and dimensions shall be as shown. All Concrete Masonry shall be kept plumb. Units being laid and surfaces to receive units shall be free of water film and frost. Units shall be shoved into place so that the vertical joints are tight. Vertical joints of the vertical face shells of concrete masonry units shall be completely filled with mortar. Units that have been disturbed after the mortar has stiffened shall be removed, cleaned and re-laid with fresh mortar. Space around metal doorframes and other built-in items shall be solidly filled with grout. Faces of units in finished areas shall be free from chipped edges or other imperfections detracting from the appearance of the finish work.

7.1.1 Surface Preparation

Surfaces on which masonry is to be laid shall be cleaned of laitance and other foreign material and slightly roughened to provide a surface texture with a depth of at least 1/8-inch.

7.1.2 Hot Weather Masonry Construction

Masonry erected when the ambient air has a temperature of more than 99 degrees F in the shade and has a relative humidity of less than 50 percent shall be protected from direct exposure to wind and sun during installation and for 48 hours after installation.

7.1.3 Cold Weather Masonry Construction

Temperatures of masonry units shall not be less than 40 degrees F when laid and the temperature of the mortar and grout used shall be between 40 degrees F and 120 degrees F. When the ambient temperature is 32 degrees F or less, masonry work under construction shall be protected and maintained at a temperature greater than 32 degrees F during installation and for a period of 48 hours after installation. The proposed method of maintaining the temperature within the specified range shall be submitted for approval prior to implementation.

7.1.4 Tolerances

Concrete Masonry Units shall be laid plumb, level and true.

7.2 Grout: Grout shall be furnished by the Government.

7.3 CUTTING AND FITTING

Wherever possible, full units shall be used in lieu of cut units. Where cut units are required to accommodate the design, cutting shall be done by masonry mechanics using power masonry saws, except that cutting of units in unexposed work may be accomplished with masonry hammers and chisels. Wet cut units shall be dried to the same surface-dry appearance as uncut units before being placed in the work. Cut edges shall be clean, true, and sharp. Openings to accommodate pipes, conduits, and other accessories shall be neatly formed so that framing or escutcheons required will completely conceal the cut edges. Cutting of webs of hollow units shall be kept to a minimum. Insofar as practicable, all cutting and fitting shall be accomplished while masonry work is being erected. Two (2) 3-inch plastic sleeves shall be installed to accommodate the water lines.

7.4 CONCRETE MASONRY UNITS : Concrete masonry units shall not be wetted before laying. Hollow units shall be laid so as to preserve the vertical continuity of cells that are to be filled with grout.

7.5 JOINTING

Joint widths shall be uniform and such that the specified widths are maintained throughout. Joints in concealed masonry surfaces and joints at top of electrical boxes in wet areas shall be cut flush with the masonry surfaces.

7.5.1 Concrete Masonry Unit Joints: None

7.5.2 Architectural or Decorative Unit Joints

7.6 JOINT REINFORCEMENT: None

7.7 REINFORCING STEEL

Reinforcing steel shall be cleaned of loose or flaky rust and scale, greaser mortar, or other coating which would tend to reduce bonding of the grout to steel. Steel shall be in place at the time of grouting. The minimum clear distance between bars and masonry units shall be 2-inch; and between parallel bars, the minimum clear distance shall be one bar diameter. Reinforcement shall be held in place with centering clips or caging devices. Vertical bars shall be supported near each end and at intermediate intervals not exceeding 192 bar diameters. Horizontal reinforcement shall be set in a full bed of grout. Splices in adjacent bars shall be staggered. Reinforcing bars where spliced shall be lapped a minimum of 40 bar diameters. Two number four reinforcing shall be place in the door header.

7.8 GROUTING,

Grout dry ingredients shall be mechanically mixed with sufficient water to bring the mixture to a pouring consistency for at least 5 minutes using the mix design established in the laboratory as specified in paragraph "GROUT." Where high-lift grouting is to be used, cleanout holes shall be provided at the bottom of all cores containing vertical reinforcement in hollow unit masonry. Areas to be grouted shall be cleaned of mortar droppings and other debris and cleanout holes shored or closed with masonry units to contain the grout. Grout shall be placed by hand bucket, concrete hopper, or grout pump. Each lift of grout shall be consolidated after water has left but before plasticity is lost. Consolidation shall be accomplished by mechanically vibrating to insure complete filling of the grout space. When consolidating successive lifts of plastic grout, the tip of the vibrator shall penetrate the preceding lift approximately 10 inches to ensure-grout continuity in the wall section. Trowel blade shall not be used for consolidation of grout. If grouting operation is stopped for 1 hour or longer, the grout placement shall be stopped in a manner to provide a 1-1/2inch keyway below the top of the masonry unit. Grout holes shall be formed in spandrel beams and other in-place overhead construction. Holes shall be located over spaces to be grouted and shall be in sufficient numbers and spaced as required to insure that the space to be grouted shall be completely filled. Walls to be grouted shall be adequately shored or braced to prevent shifting, buckling or blowouts. After grouting operations

are completed the faces of cleanout holes shall be patched to closely match the surrounding surfaces.

7.8.1 Low-Lift Grout

Hollow-unit masonry to be grouted by the low lift method shall be constructed and grouted in lifts not exceeding 4 feet.

7.8.2 High-Lift Grout

If grouting is accomplished by the high-lift method, hollow-unit masonry shall be allowed to cure at least 24 hours before grouting. Grout shall be placed in lifts not to exceed 4 feet in depth. Each lift shall be allowed to set for 10 minutes after initial consolidation of grout before successive lift is placed. The full height of each section of wall shall be grouted in one day.

7.9 BOND BEAMS

Bond beams shall consist of concrete masonry bond beam units reinforced and filled with grout. A minimum clearance of 2-inch shall be maintained between reinforcement and interior faces of units.

7.10 DISCONTINUOUS WORK

When necessary to temporarily discontinue the work, masonry units shall be stepped back for joining when work resumes. Toothing is not permitted. Before resuming work, loose mortar shall be removed and the exposed joint shall be thoroughly cleaned. Top of walls exposed to rain or snow shall be covered with nonstaining waterproof covering or membrane when work is not in process. Covering shall extend a minimum of 2 feet down on each side of the wall and be held securely in place.

7.12 STRENGTH TESTS OF GROUT

Grout is subject to test in accordance with ASTM C 39 by an approved commercial testing laboratory, and shall exhibit a minimum compressive strength of 2000 psi at 28 days and will be provided by the government.

7.13 CLEANING

Grout daubs or splashings, before setting or hardening, shall be completely removed from masonry unit surfaces. Before completion of the work, all defects in masonry surfaces shall not be cleaned, other than removing excess surface mortar, until mortar in joints has hardened. Cleaning shall be accomplished with the use of stiff bristle fiber brushes, wooden paddles, wooden scrapers, or other suitable nonmetallic tools. Masonry surfaces shall be left clean, free of mortar daubs, dirt, stain, and discoloration, including scum from cleaning operations, and with tight mortar joints throughout.

7.14.1 Concrete-Masonry-Unit Surfaces

Concrete-masonry-unit surfaces shall be dry-brushed at the end of each day's work.

8. ROOF FORMS:

9. CONCRETE:

9.1. CONCRETE FINISH: The concrete shall be troweled to a smooth finish.

10. Plumbing: All plumbing shall be installed in accordance with drawing sheet P-1

11. Electrical: All electric shall be installed in accordance with drawing sheet E-1

11. SCHEDULE: The contractor shall complete all work within 60 days after notice of Award. All work shall be performed Monday through Friday (excluding Federal Holidays), between 7:30 a.m. and 5:00 p.m., unless prior written approval is obtained from the GR.

12. PAYMENT: Payment will be made, on a lump sum basis for each bid schedule, after final inspection and acceptance by GR. The contract price shall be full compensation for furnishing labor, tools, equipment and incidentals necessary to complete all work as specified above.

13. SAFETY: The contractor shall comply with the applicable provisions of EM 385-1-1, Safety and Health Requirements Manual, dated September 1996, U.S. Army Corps of Engineers (furnished by government). All tools and equipment used in the performance of work under this contract shall conform to the requirements of this manual. Any equipment not in conformity or not in safe operating condition shall be removed from the job site.

14. INSPECTIONS: All work shall be subject to inspection and acceptance by the GR. The contractor shall provide the GR a copy of his/her proposed work schedule at the beginning of the job and keep the GR informed of all schedule changes.

15. ENVIRONMENTAL PROTECTION: Care shall be taken to prevent damage to trees, shrubs and other vegetation. Damage and rutting caused by vehicles or equipment operation shall be returned to original condition at no expense to the government.

BIDDERS LIST

JOHN KNIGHT
RT. 11 BOX 222
MOUNTAIN HOME, AR 72653
501-425-2705

RAY MCFALL
HCR 62 BOX 135
NORFORK, AR 72658
501-499-5537

WHITE RIVER PUMP CO.
HC, BOX 177
BROCKWELL, AR 72517
501-258-3562

JACKIE STONE
449 CR 485
MOUNTAIN HOME AR 72653
870-425-8588

HDI CONTRACTORS
710 HWY 62 - 65 SOUTH
HARRISON, AR 72601
870-743-2323

LEE WOOD
5965 OAKLAND ROAD
OAKLAND, AR 72661
870-431-5765

BID SUMMARY

ITEM	DESCRIPTION	QUANTITY/TYPE	U/M	TOTAL
0001	INSTALL TOILET/SHOWER QUARRY PARK		JB	____.____
			TOTAL	____.____

GOVERNMENT ESTIMATE
BID SUMMARY

ITEM	DESCRIPTION	QUANTITY/TYPE	U/M	TOTAL
0001	INSTALL TOILET/SHOWER QUARRY PARK		JB	\$24,000.00